

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered). Please AMEND claims * and ADD new claims * in accordance with the following:

1. (Currently Amended) ~~Apparatus for loading~~An apparatus to load a substrate onto a processing surface in a thin-film processing chamber, the apparatus comprising a support which cooperates with one or more corresponding apertures in the processing surface so as to be movable between an extended position in which the support can support a substrate above the processing surface, and a retracted position in which the support is flush with or located below the processing surface, wherein the support comprises a number of limbs extending radially outwardly from a central hub, at ~~an~~ a constant angle relative to a plane of the processing surface, the limbs being configured to contact the edges of different sized substrates in use so as to support the substrate in a support plane substantially parallel to the plane of the processing surface, the support plane being provided above the central hub.

2. (Original) Apparatus according to claim 1, wherein each limb defines a continuous support surface extending at an angle relative to the processing surface, each support surface contacting the edges of different sized substrates in use.

3. (Original) Apparatus according to claim 1, the apparatus further comprising a loading arm having a mounting which receives a substrate in use, the loading arm being movable between a retracted position and an extended position in which the mounting and the support cooperate such that, in use, motion of the support to the extended position causes the substrate to be supported by the support, thereby removing the substrate from the mounting.

4. (Original) Apparatus according to claim 3, wherein the mounting is located outside the chamber when the loading arm is in the retracted position.

5. (Currently Amended) ~~Apparatus according to claim 3~~An apparatus to load a substrate onto a processing surface in a thin-film processing chamber, the apparatus comprising:

a support which cooperates with one or more corresponding apertures in the processing surface so as to be movable between an extended position in which the support can support a substrate above the processing surface, and a retracted position in which the support is flush with or located below the processing surface, wherein the support comprises a number of limbs extending radially outwardly from a central hub, at an angle relative to the processing surface, the limbs being configured to contact the edges of different sized substrates in use so as to support the substrate in a support plane substantially parallel to the processing surface, the support plane being provided above the central hub; and

a loading arm having a mounting which receives a substrate in use, the loading arm being movable between a retracted position and an extended position in which the mounting and the support cooperate such that, in use, motion of the support to the extended position causes the substrate to be supported by the support, thereby removing the substrate from the mounting,

wherein the mounting comprises a number of mounting elements extending radially outwardly from a central portion, each mounting element defining a number of mounting surfaces, and each mounting surface being associated with a respective mounting plane.

6. (Previously Presented) Apparatus according to claim 3, the apparatus further comprising a drive unit controllably moving the loading arm between the extended and retracted positions.

7. (Previously Presented) Apparatus according to claim 1, the apparatus further comprising an actuator controllably moving the support between the extended and retracted positions.

8. (Previously Presented) Apparatus according to claim 1, the apparatus further comprising a clamp movable between an open position and a clamping position to clamp the substrate to the processing surface.

9. (Original) Apparatus according to claim 8, wherein the clamp comprises an annular clamping element extending radially inwardly from an outer clamping ring, the clamping ring being positioned radially outwardly from the processing surface.

10. (Previously Presented) Apparatus according to claim 9, the apparatus further comprising a clamp actuator to move the clamp between the open and clamping positions, the clamping ring being removably mounted to the clamp actuator.

11. (Previously Presented) Apparatus according to claim 4, the apparatus further comprising a controller controllably moving the support and the loading arm between their respective retracted and extended positions.

12. (Currently Amended) ~~Apparatus according to claim 1, further comprising An~~ apparatus to load a substrate onto a processing surface in a thin-film processing chamber, the apparatus comprising:

a support which cooperates with one or more corresponding apertures in the processing surface so as to be movable between an extended position in which the support can support a substrate above the processing surface, and a retracted position in which the support is flush with or located below the processing surface, wherein the support comprises a number of limbs extending radially outwardly from a central hub, at an angle relative to the processing surface, the limbs being configured to contact the edges of different sized substrates in use so as to support the substrate in a support plane substantially parallel to the processing surface, the support plane being provided above the central hub; and

a loading assembly having a mounting which receives a substrate in use, the loading assembly being movable between a retracted position in which the mounting is outside the processing chamber and an extended position in which the mounting is inside the processing chamber, and wherein the mounting comprises a number of mounting elements extending substantially radially outwardly from a central position, each mounting element defining a number of mounting surfaces, and each mounting surface being associated with a respective mounting plane, and wherein the mounting and the support cooperate such that, in use, with the loading assembly in the extended position, motion of the support to the extended position causes the substrate to be supported by the support, thereby removing the substrate from the mounting.

13. (Original) Apparatus according to claim 12, wherein each mounting plane is adapted to be used when loading a respective size of substrate.

14. (Original) Apparatus according to claim 12, wherein each mounting plane is adapted to be used when loading a respective size of substrate, and wherein the mounting is adapted such that in use a substrate positioned on the mounting in the respective mounting plane will be located substantially over the centre of the processing surface when the loading assembly is in the extended position.

15. (Previously Presented) Apparatus according to claim 12, wherein the apparatus further comprises a drive unit controllably moving the loading assembly between the extended and retracted positions.

16. (Previously Presented) An apparatus for loading a substrate onto a processing surface in a thin-film processing chamber, the apparatus comprising:

a support which cooperates with one or more corresponding apertures in the processing surface so as to be movable between an extended position in which the support can support a substrate above the processing surface, and a retracted position in which the support is flush with or located below the processing surface, wherein the support comprises a number of limbs extending radially outwardly from a central hub, at an angle relative to the processing surface, the limbs being configured to contact the edges of different sized substrates in use so as to support the substrate in a support plane substantially parallel to the processing surface, the support plane being provided above the central hub; and

a loading assembly having a mounting which receives a substrate in use, the loading assembly being movable between a retracted position in which the mounting is outside the processing chamber and an extended position in which the mounting is inside the processing chamber, and wherein the mounting comprises a number of mounting elements extending substantially radially outwardly from a central position, each mounting element defining a number of mounting surfaces, and each mounting surface being associated with a respective mounting plane, and wherein the mounting and the support cooperate such that, in use, with the loading assembly in the extended position, motion of the support to the extended position causes the substrate to be supported by the support, thereby removing the substrate from the mounting,

wherein the loading assembly comprises a carriage, a first drive unit driving the carriage with respect to a base, and a second drive unit that moves with the carriage and cooperates with the base, whereby the relative movement between the carriage and the base causes the second drive unit to drive the mounting with respect to the carriage.

17. (Original) Apparatus according to claim 16, wherein the carriage is slidably mounted to the base and the mounting is slidably mounted to the carriage.

18. (Previously Presented) A thin film processing system comprising one or more processing chambers in which substrates are processed, and the apparatus according to claim 1 to load the substrates.

19 (Previously Presented) The system according to claim 18, wherein the system is a plasma processing system for treatment of semiconductor wafers.

20. (Withdrawn) Apparatus according to claim 1, further comprising a conduit supplying cooling gas to enhance heat transfer between the processing surface and a substrate placed, in use, on the processing surface.

21. (Withdrawn) Apparatus according to claim 20, wherein the conduit surrounds the central hub of the support.

22. (Withdrawn) Apparatus according to claim 20, wherein the conduit communicates with the said one or more apertures.

23. (Withdrawn) Apparatus according to claim 22, wherein the limbs of the support are a close fit in the respective ones of the said apertures.

24. (Withdrawn) Apparatus according to claim 20, wherein the processing surface defines a number of inlet holes whose openings face a substrate placed, in use, on the processing surface, the inlet holes communicating with the conduit.

25. (New) A support to load a substrate onto a thin film processing surface, comprising:

a central hub; and

a plurality of support limbs radially extending from the central hub at a constant angle relative to a plane of the processing surface, to accommodate different size substrates by contacting edges of the substrate and supporting the substrate in a plane substantially parallel to the plane of the processing surface,

the support selectively moving between an extended position in which at least the support limbs extend through the aperture to receive the substrate, and a retracted position, in which the substrate is supported by the processing surface and the support limbs are one of retracted through the aperture and flush with the processing surface.

26. (New) An apparatus, comprising:

- a loading chamber;
- a thin film processing chamber communicating with the loading chamber;
- a substrate mounting movable between the loading chamber and the thin film processing chamber and comprising a plurality of mounting elements extending substantially radially outwardly from a central position, each mounting element defining a plurality of mounting surfaces to accommodate different size substrates, each mounting surface being associated with a respective mounting plane;
- a thin film processing surface positioned in the thin film processing chamber; and
- a support moving a substrate between the substrate mounting and the processing surface, the support comprising
 - a central hub, and
 - a plurality of support limbs radially extending from the central hub at a constant angle relative to a plane of the processing surface,
- the support selectively moving between an extended position in which at least the support limbs extend through an aperture in the processing surface and communicate with the substrate mounting to contact edges of the substrate and support the substrate in a plane substantially parallel to the plane of the processing surface, and a retracted position, in which the substrate is supported by the processing surface and the support limbs are one of retracted through the aperture and flush with the processing surface.